DOCUMENT RESUME

ED 192 874 PS 011 633

AUTHOR Perney, Lawrence; And Others
TITLE Cooperative Inquiry: A Teacher-Based Approach to Upgrading Skills for Urban Kindergarten Children.
SPONS AGENCY Martha Holden Jennings Foundation, Cleveland, Ohio.
PUB DATE Jun 75
NOTE 74p.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Curriculum Development; Educational Responsibility; *Group Discussion; *Inservice Teacher Education; Instructional Improvement; Kindergarten Children; *Preschool Teachers; Primary Education; *Program Effectiveness; Program Evaluation; *Teacher Improvement; Teacher Response; Urban Education
IDENTIFIERS *Cleveland Public Schools OH

ABSTRACT

This monograph describes a year-long, retraining program for East Cleveland kindergarten teachers that was based on teacher involvement in group discussions and curriculum improvement activities. The program was developed in order to provide, with no additional funds, an education to inner-city children that compared favorably with the education received by suburban children. Theories and studies relevant to early childhood learning are reviewed in Chapter One in order to emphasize the importance of early educational intervention in children's formative years. Background information, and demographic and school achievement data that represent East Cleveland as a typical urban school system are provided in Chapter Two. Chapter Three describes how teacher retraining was accomplished through group discussions and curriculum design activities. Positive outcomes of the group discussions for teaching practice, such as improved self-esteem among teachers, are indicated. Chapter Four reports project evaluation efforts and data. Among the results it was revealed that the number of students who failed to achieve the minimum level for school readiness was greatly reduced and the performance levels of the inner-city, predominately black children substantially increased. In conclusion, Chapter Five briefly places the program in the broader perspective of educational problems that remain unsolved and emphasizes the potential of teachers for improving student outcomes. (Author/RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED192874

COOPERATIVE INQUIRY

A TEACHER-BASED APPROACH

TO UPGRADING SKILLS FOR URBAN KINDERGARTEN CHILDREN

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Prepared For

The Martha Holden Jennings Foundation

By

Lawrence Perney

Violet Perney

George Eppley

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

George Eppley

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PS 011633

June, 1975

Acknowledgements

The authors would like to thank Dr. Richard Derr of Case Western Reserve University and Mr. John Jirus, Director of Elementary Education for the East Cleveland Board of Education, for the roles they played in serving as group leaders. The success of the project may be particularly attributed to the many dedicated teachers who participated. Finally, appreciation is due to The Martha Holden Jennings Foundation for providing encouragement, trust, and the necessary funding to make this program possible.

Table of Contents

Introduction.....1
The Time to Begin -- Early Childhood.....6
East Cleveland School and Community.....16
Changing Patterns.....24
Project Evaluation.....36
Conclusion.....66

Introduction

Among the great achievements of the Twentieth Century America has been a dedication to and development of a comprehensive educational system. Never in history have as many people been in schools for as lengthy a period of their lives, nor ever before has a nation channeled as much of its financial resources into educational programs to reach both children and adults.

Formerly, universal education was only a dream. Today this dream has not only become a reality for a majority of Americans, but it now constitutes one of the largest businesses in the country. For many in America, public education has provided the means for acquisition of speaking, reading, and writing skills for movement up the ladder of academic, social and financial success.

For many other Americans, however, particularly those living in the blighted core areas of the central city, the dream is still a dream and perhaps even a nightmare. This fact remains a source of grave embarrassment and frustration to public educators who cherish the democtratic ideal. It is also a source of tension in communities where adults assign to the schools responsibility for ensuring that the student population has success and growth opportunities.

Documentation of the criticisms of public urban education, particularly as it relates to those children who live in the huge poverty of a large sprawling metropolis, is freely available. That public education has generally failed to meet the needs of these youngsters is almost universally accepted.

The literature on urban education is too often replete with a sense of frustration and pessimism about its status. From one persepctive, however, this literature offers signs for hope, because it documents that many public educators will not be content until the opportunity for adequate education is available to every child. Furthermore, these studies demonstrate the need for continuing the efforts and resourses of the federal, state and local governments in mounting a coordinated assault upon problems confronting urban education. The direction of these efforts should especially be concerned with selecting the more prominent educational variables which result in inferior achievements in urban schools and then applying appropriate and feasible strategies of intervention and prevention. Each child should be afforded the opportunity to fully benefit from his educational exposure as well as to develop the capacity to participate in the richness of his community and cultural heritage.

To serve as a critic of urban education--and many have taken up that role--is a simple task. Such is not the intent or message of this monograph. The federal and state governments through many substantive grants have attempted to provide for the educational needs of those who today have been characterized as "the disadvantaged". The general failure of past efforts have not been for lack

of proper intention or availability of financial resources. What has been and continues to be lacking are enough examples of schools and school systems which have managed to succeed.

The East Cleveland Public Schools are an example of a school system which can report some success in the area of urban education. The success has been achieved in large part because officials of the school system recognize that strategies have to be developed, which do not merely deal with the external problems of urban education, but which effectively alter the fundamental processes that occur in the institutions. With the assistance of the Martha Holden Jennings Foundation, the East Cleveland Board of Education undertook to develop a program of urban education which attempted to study education in its cultural milieu and to utilize the knowledge of the school culture as a tool and technique in instituting programs that could provide an education for urban children that would be comparable to--if not superior to--the education received by their suburban peers.

As Sarason[1] so aptly stated, "The history of the attempts to change the school setting in any meaningful way supports the generalization that the more things change, the more they remain the same." The obvious failure of urban schools to implement promising intervention or prevention procedures can perhaps be attributed to a failure to understand and utilize the effects of school culture in the educational process. Through a thoughful assessment of the status of urban education, the members of the East Cleveland Board of Education asked some basic directional questions. The answers to these questions provided the foundation on which to devise

strategies to improve educational opportunities for racially and economically disadvantaged students. The directional questions were as follows:

1. When a child begins his formal education, how can the school immediately improve his cognitive and affective development to compensate for any deficits due to an early disadvantaged childhood?
2. How can the school alter the pattern of cumulative deprivation so that the child becomes capable of achieving cognitively and affectively at a rate commensurate with his chronological development?
3. How can the educational process utilize conflicting peer group, cultural and societal expectancies to prepare an educational environment that meets students' individual needs and provides a more personalized process; while, at the same time, advances and expands their learning skills?
4. How can the school motivate students to learn, assist them to perceive education as meaningful and demonstrate that via school success tangible results culminate in promising employment or educational advancement?

Each of these issues has been translated into specific plans of action by the Board of Education. The questions raised in searching for a pattern for success apply to a different degree according to the age and grade levels of the child. To effect planned change within the system differing approaches and strategies have been de-

vised, each as separate programs. The present monograph describes the first East Cleveland programs which dealt with these questions. The first step was the development of a program for early childhood education within a kindergarten setting. This should result in an educational advantage of the beginning of the children's schooling even though they are drawn from a disadvantaged background.

Chapter One

The Time To Begin -- Early Childhood

The importance of early childhood as a special period of development is now a well established principle among educators. More than a century ago Froebel[2] introduced kindergarten classes to take advantage of the early formative years in the educational process. The significance of Froebel's innovation gradually came to be appreciated. Freud[3] first pointed out the relative importance of early childhood experience when he established a psychological relationship between a child's first six years and his eventual mature state. The principle that "the child is the father of the man" has since become almost totally accepted.

It wasn't however until Montessori[4]--because of a unique set of circumstances which were ultimately favorable to education--that Freud's theoretical concepts were translated into educational theory via preschool and early childhood education. Montessori's concern for the poor and underprivileged child led her to establish a school for children based upon an instructional program geared specifically to the needs of three to six year olds. With her keen insight she formulated a number of significant principles which ultimately became accepted educational practices in subsequent years, particularly up to the Sixties.

As with Freud she considered the early years in the life of a child as particularly crucial. Life unfolded through a series of set patterns or periods during which the acquisition of specific skills or comprehension occurred most easily due to the child's biological and psychological level. These, Montessori referred to

as sensitivity periods. In every sense, Montessori was one among many who espoused maturational theory as the major premise for her educational theories. Human life evolved through stages. Hence the concept of "readiness" associated with each stage was a readiness to learn those behaviors associated with a specific level of development.

The concept of "learning readiness" or period of "sensitivity" has tremendously influenced the practive of teaching as well as the strategies educators rely upon to promote educational progress. For years parents and teachers have debated when a child was ready to learn his numbers, his alphabet, to read, to write, etc. More subtle, however, were the consequences of totally accepting the premise of "learning readiness." Since the idea that development best occured when readiness was attained, some experts concluded that failure to implement learning during a "readiness period" resulted in irreparable damage to the normal learning process. Failure to acquire a skill during such readiness periods has been the rationale offered some children entering the schooling years with educational deficiencies.

Montessori also emphasized the importance of environmental factors to promote maximum learning during sensitivity periods. Such influence of environmental stimuli dictated carefully prearranged experiences or the so-called "prepared environment." Inherent in her educational theory was the need for an extensive interaction between a person and his world, a fusion of nature and nurture. This biological model of growth and development, based

upon an unfolding organism interacting with environment, was eventually defined as a learning model referred to as maturational theory. Montessori, Gessell[5], and many notable educators and psychologists for nearly half a century sought to define a child's behavior by age norms arrived at by multitudinous comparative studies of children.

Such normative data pertaining to "normal growth and development" was progressive in intention, but unfortunately in practice often led to abuses. The norms too often were held sacred. Books and popular literature describing growth from infancy to childhood became the "Bible" on how to raise a child. Special status or prestige was expressed by many parents whose children attained a particular skill at or before the prescribed age. On the other hand, when children developed at a slower pace than the norms dictated, parents expressed concern. More serious, however, were those abuses that became incorporated into the practices of school themselves, all in the name of the fundamental learning principle, "readiness." Without substantiative data, it became a general practice to determine the age, the rate, and the manner in which children should acquire specific learned skills. The age and order of educational opportunity and experience became fixed or perhaps, more appropriately, sacred. Few questioned the authenticity of such decisions and such policies became firmly established in educational practice. They became incorporated into what today many recall as "the way it was when they went to school" or "schooling during the good old days."

Since 1900 the movement toward early childhood education has progressed steadily throughout Europe and the United States. The major impetus occurred among communities with a large percentage of high socio-economic parents and among the more progressive and economically endowed school systems. In such circumstances children were exposed to a formal learning atmosphere at an even younger age. Nursery schools became popular and served as a forerunner to preschools. Some may question whether there is any distinction between the nursery schools and preschool. The distinction, where it exists, is not of significant importance. What is meaningful is that many parents perceived a need for entering their children into some type of learning climate in anticipation of formal schooling. They believed that early childhood education would provide a real advantage in elementary school.

However, as well recognized and accepted as had become the practice of nursery schools and kindergarten classes, less than 50 percent of the children in America were provided with the opportunity to attend. The majority of children who had preschool experience were from a socio-economic class that represented the more affluent in our communities. At about the same time many school systems throughout the state were encouraged to introduce kindergarten classes by the availability of federal funds under the Emergency School Education Act of 1966, more popularly known as Title I. It wasn't until 1974 that kindergarten classes became mandatory in Ohio.

The Supreme Court decision of 1954 began a new era for early

childhood education. At this time the attention of psychologists and educators was directed toward the lower economic status groups and the so-called "disadvantaged" of our country. The Supreme Court ruled that it was unconstitutional to maintain the concept of separate but equal facilities for education. As a result of this decision, children of various racial backgrounds were required to attend to the development of their educational skills within integrated educational environments. Differences in progress became immediately apparent. As a result many studies were conducted throughout the Sixties along cross-cultural and ethnic lines. It soon became apparent that some children entered both life and school with many selected advantages. Others, deprived during their infancy and early childhood of intellectual stimulation, entered the educational system with varying degrees and levels of deficiencies. This condition was frequently labeled in educational literature as early childhood deprivation, cultural deprivation, or educational deprivation. These children were referred to as the "disadvantaged." The disadvantaged are primarily white, black, Indian or Chicano who live in large urban areas as well as among our poor racial communities. These children too often grow up faced with a variety of handicaps due to pervasive poverty. Their patterns of development and learning give evidence to a trend of an educational deficiency.

Early childhood deprivation was assumed by some to lead to permanent disability that persisted throughout life. Without prevention or early remediation, the educational deficiency would con-

tinue to increase with age until the chance for change would ultimately prove hopeless.

The vast difference in educational achievement that were highlighted through integrated education revived the old adage, "An ounce of prevention is worth a pound of cure." This became the banner and the major strategy employed by educators to reduce the differences between races and between the rich and poor. Early childhood education--long a luxury of the affluent--became a necessity for the poor. Subsequent programs developed by the federal government such as Head Start, the Engleman-Bareiter[6] preschool and the Louisville project were examples of just such strategies.

The problems associated with education of the disadvantaged encouraged a tremendous resurgence of research into educational theory and practice. Many significant facts have, thus, been added to our knowledge and have either substantiated former beliefs or have led to new concepts for formulating sound educational practice.

The studies of J. McVicker Hunt[7] and Benjamin Bloom[8], in particular, influenced the trend toward early childhood education. Hunt concluded from his research that the intellectual abilities of a child were not fixed at birth--as many had previously believed--but were subject to considerable influence from environmental factors. In other words, the concept of intelligence as a fixed variable was no longer tenable. Rather, intelligence became a multi-dimensional--a function not only of heredity but also of one's experiences, one's exposure, and the opportunity for growth. Bloom's research also verified the importance of early childhood experience.

Bloom demonstrated that as much as 50 percent of a person's total intelligence was acquired by age four. What Montessori intuitively assumed, Hunt and Bloom demonstrated. That is, given the optimal opportunities during the early stages of life, one's chances of attaining maximal intellectual development become greatly enhanced.

The concept of "readiness" also received the same scrutiny as other topics and was applied to the education of the disadvantaged. As a result, two separate interpretations emerged with each influencing educational strategy. Both interpretations have contributed to educational practices and in correcting misunderstandings in the concept of readiness.

Although many of his works were developed in the Thirties and Forties, Piaget[9] did not receive much attention from American educators until the early Sixties. His particular contribution to early childhood education was a very explicit and detailed explanation of maturation as it was related to learning. The concepts Freud and Montessori introduced, Piaget developed into a sophisticated system of educational theory. The evolution of development through stages was theoretically proposed and subsequently scientifically explored. During early infancy and childhood, psychomotor development and perceptual development preceded and became the foundation for what is generally defined as higher-order learning (concrete operations and abstract operations). According to Piaget, learning readiness was a function of intelligence, while intelligence itself was in a state of progressive development which differed in concern with the substance of an object as well as the principles of operations at each stage. Many curricular changes evolved

as Piagetian theories were verified, particularly those dealing with the learning of numbers, space, time, volume and language in early childhood. The acquisition of skills in these and related areas are dependent upon the presence of specific mental functions. Since they can be identified, a child's readiness to learn is not an arbitrary decision but one that can be supported by logic and reason. With the sequential patterns of learning identified, general guidelines have been formulated in which the concept of readiness can be utilized to the best advantage.

Bruner,[10] on the other hand, approached the question of readiness from a different perspective. Bruner assumed the child was a learner. Rather than ask when a child was ready, he asked how the subject matter could be presented to fit the child's state of readiness. It became no longer a matter of the school waiting for a child's readiness, but a matter of the curriculum changing to the child's mode of learning. He advocated a hypothesis that anything could be taught to anyone as long as it was presented in a manner suitable to be comprehended by the age of the learner. As a result the curricula of preschools and kindergarten gradually included more concepts formerly reserved to the upper grades.

The research conducted by Lesser, Fifer and Clark[11] was a very important addition to our knowledge about cultural differences. Their studies suggested that different cultural groups followed learning patterns that were typical to the cultural groups rather than to all cultures. The conclusion to be made from this research is that children develop the cluster of traits and abilities which

are related to the needs and life-styles of individual cultures. If this is the case, cultural differences in learning may be narrowed or eliminated by the development of learning climates in which new skills and new abilities become revelent to every life-style.

The simple review that has been presented of some of the most pertinent theories and experimental studies relevant to early childhood learning seems to focus on the significance of that period of life in the educational process. The obvious conclusion is that any solution to the multiple problems facing educators who are engaged in developing compensatory educative programs must begin with and include the child in his early formative years. Another major factor is the previously stated concern that unless the differences between socioeconomic classes and cultural classes are resolved in the educative process during the early years of life, the likelihood of success declines with time.

Unfortunately, the firm conviction for the pressing need for early childhood education and of the direction for such programs as dictated by research, too often, is not compatible with the practical and realistic problems that beset education as a whole. First of all, preschool programs have not been funded to the extent that allows a massive effort to reduce differences between the culturally endowed and the disadvantaged child. What had been skillfully conceived became financially impractical. The cost factor becomes the reality with which the educator in the field must live as much as he would prefer to plan and implement extensive preschool pro-

grams. He is unable to put into practice what he believes to be sound educationally. Educators and school systems must search to transcend this dilemma. What is obviously needed is a means to remedy the educational deficit of children within the confines of a limited budget and yet still be able to reach the massive number of children who deserve a fair start in their formal education.

Secondly, the criterion persists that little evidence exists which can demonstrate any long-lasting efforts to prevention and intervention programs developed for four and five year olds. To maintain the gains attributed to successful programs, these efforts need to be extended to regular classroom activities. The cumulative deficit as a child progresses through school assumes greater attention and poses greater concern. A fair start serves its purpose when and if the children involved succeed in obtaining their purpose.

This report summarizes the efforts of the East Cleveland School System to resolve this difficult situation without a massive expenditure of funds which it neither possesses nor is capable of acquiring. With no increase in staff or funding except for a small grant from the Jennings Foundation, the East Cleveland School System implemented a program which demonstrates the feasibility of achieving the major goals inherent in preschool education, e.g. eradicating differences between social classes in achievement by means and strategies within the reach of all educational systems facing similar problems. The following is a summarization and result of East Cleveland's approach to early childhood education.

Chapter Two

East Cleveland School and Community

East Cleveland Schools typify, in most respects, numerous schools and school systems which have been classified as "urban systems." Similarly, even though East Cleveland is a suburb of Cleveland, the full impact of the urban crisis has influenced the community, its economy, and its development. East Cleveland differs from many other urban communities in its geographical composition with an area of only three square miles.

Ten years ago the community entered a transitional period in its long history of Northeastern Ohio. The community changed from an old conservative suburban life-style to that of an inner city ghetto. Change was sudden. The completion of the turnabout was nearly as rapid and as startling as was the beginning. Among the city's inhabitants are as many apartment dwellers as home owners. Nearly all homes are nestled closely together with exceedingly small lots for rather large homes. With the exception of one small building development, the age of the existing homes extends to seventy-five years. Within the three square miles dwells over forty thousand inhabitants--one of the most densely populated areas in Ohio.

Contiguous to Cleveland on three sides there is a lack of any identifiable characteristics which could provide identity as a separate community. The only exceptions are the signs announcing "Welcome to East Cleveland." For all practical purposes East Cleveland appears as an extension of Cleveland itself. Residents soon tire of explaining to others that East Cleveland is a city of its

own. The fourth side of the city borders Cleveland Heights, and here the contrast is clear and apparent. The homes are gracious and on spacious beautiful lots dressed in a finery of manicured lawns and clipped shrubbery.

Commencing in the mid Sixties, major population shifts began to occur in the area. As they prospered, residents from the swollen ghettoes of the Hough and Central area--parts of Cleveland's inner city--began to search for better living conditions. The exodus from Cleveland to East Cleveland was viewed as a blessing, an opportunity to escape from overcrowding, poverty, and an end to the long struggle against discrimination. The dream of upward mobility and the vision of suburban respectability was to become a reality. East Cleveland was to be the "integrated city", where blacks and whites could share the middle-class dream.

Unfortunately, expectations often fail to materialize. So it was in East Cleveland as the dream turned into a nightmare. As blacks moved in, whites moved out. Integration rapidly changed to resegregation. Within a few years the racial composition of the community escalated from less than one percent to more than 60 percent black. The shattered dream was not solely the result of racial change, but the addition of a multitude of contributing factors that descended on the city in rapid succession and without preparation.

The financial stability of the community was one of the first areas to be drastically affected. Business and industry in the community tended to relocate to new developing communities. Stores,

shops and many sizable corporations left vacant buildings and a reduced tax base.

As a result, property values decreased steadily. The tax duplicate suffered greater than a 20 percent decrease with a subsequent decrease in revenue. Coupled with this decrease was one of the greatest inflationary periods in recent history. The community lacked the resources to continue to provide the quality services the residents had come to expect. Tax increases were inaugurated imposing a greater burden on the home owners. Many had moved to East Cleveland because of the many fine services it provided, but this influx of young families over-burdened existing facilities which could find little or no means of expansion.

Prior to the Seventies, welfare assistance in the community was negligible. This changed as more and more families who depended upon welfare assistance and were uprooted by urban renewal projects in Cleveland were relocated as tenants to East Cleveland. Since 1970 more than 50 percent of school age children in the community now depend upon welfare assistance for subsistence. Associated with such a large proportion of families dependent upon welfare were the related factors of fatherless families and residential instability. Welfare families tend to move more frequently as their fortune changes.

Unemployment among blacks has traditionally been higher than among whites. Unemployment in East Cleveland is twice that of white Clevelanders. The problem is particularly acute among recent high school graduates who have an astronomical unemployment rate. Large

numbers of young adults have little to do except loiter around the community, occasionally causing disturbances, but more sadly serving as poor models for younger children. Expectancies for a bleak future are incorporated early in life. Some high school students happily trade their opportunities for an education for more immediate satisfaction of employment. The irony of it all is that these dropouts are employed at a higher rate than are their classmates who waited to graduate. The combination of poor job prospects and high demand for services has contributed to a median family income which ranks second lowest in the country and a tax rate which is the fifth highest.

The community supports its own school district with approximately 8300 children in the six elementary schools, one junior high schools and one senior high school. The changes that occurred throughout the community were directly mirrored in the schools. The population of black students increased from one to 98 percent. Total enrollments increased by more than 20 percent. However, class sizes were not compromised and remained below 25 students which exhausted every available resource and room in the district.

The teaching staff which had earned a reputation for its competence and professional skills reacted negatively to the rapid change in the community. Many relocated to neighboring suburban districts. During the ensuing years, it was not unusual for 25 percent or more of the teaching staff to be new to the system. Few teachers remained whose educational experience in the system extended beyond ten years. The average experience for the entire

staff did not exceed five years.

All schools have some students who exhibit learning problems and who require supportive programs. Such schools may be described as schools with some educationally disadvantaged children. On the other hand when a majority of the students exhibit characteristics of inadequate learning progress, their school becomes an "educationally disadvantaged school." The difference between the two is tremendous. When a school system contains only "disadvantaged schools," the parameters of its educational design are limited. The strategies employed to provide educational programs for a minority of disadvantaged children within a school bear little similarity to strategies required for an "educationally disadvantaged system." The educationally disadvantaged system has already failed in its objectives. The most logical recourse would be to alter the educational process for a whole school or entire system rather than for a few students. Systemic change may ultimately be the necessary answer.

The problem of large numbers of educationally disadvantaged children taxing the resources of a school system was rather bluntly described by a psychologist who spoke to teachers in 1969. He expressed the opinion that East Cleveland did not need classes for the educably mentally retarted, but that what it needed were a few special classes for the normal child. At the time that this statement was made, East Cleveland children were, indeed, duplicating an achievement pattern found in urban schools with a high concentration of poverty and depression.

For instance, children entering kindergarten during the 1969-70 school year possessed poorly developed skills in social, psychological, motor, perceptual and/or linguistic ability. Most students developed at a rate that eventually resulted in a learning deficit of one to three years compared to national norms. Upon completion of kindergarten all children in the system were administered the Metropolitan Readiness Test. The national average reported in the test manual for the one hundred question test is a score of 54. Those scoring below 45 are described as very poor risks to perform first grade learning tasks. More than 25 percent of the students in May 1970 failed to reach the lower limits of 45 correct responses and only 12 percent exceeded the rational norm of 54. The school system, obviously, faced a serious dilemma. Kindergarten, as it existed, was not adequately preparing the children for first grade work. First grade often became an extension of the kindergarten curriculum. As the child progressed in school, he fell further and further behind.

A brief examination of achievement scores from the fall of 1970 further illustrates the problem of the East Cleveland schools and describes a pattern of the cumulative educational deficit the children exhibited. Table I includes the mean achievement scores in terms of grade placement for each grade tested on the Stanford Achievement Test as well as a comparison to national norms.

TABLE I

STANFORD ACHIEVEMENT BATTERY MEAN GRADE PLACEMENT SCORES
FOR EAST CLEVELAND PUPILS COMPARED TO TEST NORMS
FALL 1970

Grade Level	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
*Mean Achievement for Normal Group	2.1	3.1	4.1	5.1	6.1
*East Cleveland Achievement Level	1.8	2.4	3.1	3.7	4.5
Achievement Deficiency	3 mo.	7 mo.	1 yr.	1 yr. 4 mo.	1 yr. 6 mo.

*Mean achievement is stated in grade level terms, i.e. 2.1 represents second grade, one month while 4.5 represents fourth grade, fifth month. Scores for first grade pupils were not available.

The achievement test data led to the following conclusions: (1) The learning patterns of East Cleveland children followed general urban trends in that they achieved below national norms and that this achievement deficit increased with years in school. (2) The rate of growth in achievement for East Cleveland pupils rose approximately seven months of achievement growth for each year of chronclogical age increase.

In addition, the problem was compounded by a high rate of student mobility which seriously hindered attempts to alter the pattern of learning. For any given class, as many as one-third of the students may turn over during the course of one school year. For the most part, one-third that leaves represents the more successful students who are then replaced by children with varying degrees of learning handicaps. Each class and each teacher must adjust to the needs of children with widely differing skills and ability. Teachers often must be prepared to teach the content and methods of several grade levels within one classroom.

In conclusion East Cleveland typifies the urban school. The demographic data depicts a community and a school system that would normally overwhelm the good intentions of parents, teachers, administrators and city officials. The problems are clear, specific and beg for resolution within the existing capabilities and resources of those involved.

Chapter Three

Changing Patterns

The problems were evident and the challenge was clear. Neither school failure nor underachievement were acceptable to the community for its children. Regardless of the many contributing factors present which had led to school failure and regardless of the lack of financial resources, the East Cleveland Schools embarked upon a program to alter the learning patterns of its pupils. In January,1970, the Board of Education announced a specific long-term goal: the development of an educational program for disadvantaged urban children that could equal or excel any suburban system in the county. Regardless of racial or economic background, graduates of East Cleveland were to be capable of competing on an equal basis for jobs and college with their suburban peers.

The mandate to provide a quality education was accepted by the administrative staff of East Cleveland Schools. In particular, the Department of Curriculum and Instruction was reorganized under the direction of Dr. Lawrence Perney to formulate a master plan. The first priority was the improvement of the educational program for children in the early formative years. The time goal was that elementary students would be expected to be at or above grade level placement in achievement in comparison with national norms within three to four years.

As an educationally disadvantaged system, the only apparent option called for a commitment to a systemic change in the educational process. What had to be done, had to be substantive. The strategies of change had to be broad enough to reach every student

and not just a few. The educational deficit of one to three years had to be reduced or totally eliminated and the learning patterns in terms of achievement growth required alteration. No longer would it be acceptable for children to attain only six to seven months of growth in learning each year.

As planning progressed, one basic principle emerged. The educational staff and community of East Cleveland became firmly convinced that the quality of educational instruction was directly related and proportionate to the competency of the professionally employed. The crux of all progress was to upgrade and maintain the highest instructional skills possible. This belief is contrary to the opinion expressed in the Coleman Report which stated: "Schools bring little influence to bear on a child's achievement that is independent of his background and general social context; this...means that the inequalities imposed on children by their home, neighborhood and peer environment are carried along to become the inequalities with which they confront life at the end of school." To the professional educator, such a statement represents a most distressing and fatalistic concept. The belief that the nature of man is such that the course of events of his life could not be directly affected by the influence of another human being is untenable. After all, the explicit and implicit function of education is to promote change, growth and development.

Based upon this assumption, a program was developed which would enable East Cleveland pupils to begin school with a fair and equal start. The immediate goal was to prepare children during the kinder-

garten year so that they would gain sufficient skills to cope with and master first grade learning activities.

Based on the premise that the parent is a learner, the child is a learner and the teacher is a learner as well, the most rapid alteration in the schooling process would necessitate concentration upon teachers. Improving the competence of teachers and initiating change in instruction included the following specific objectives:

1. Teachers had to improve their self concept and self esteem. It was important that they become confident and aware of their capabilities.
2. Teachers needed to establish an esprit d'corp among themselves. They had to face the same problems, and could be more effective facing them together. They had to become an effective force demanding the necessary means to implement instruction.
3. Teachers needed to establish common goals and objectives among themselves. These goals and objectives had to be self-established and purposeful. Education was to be a team effort. The new concept was to provide inter-dependence as well as self-sufficiency.
4. The ambiguity of current educational jargon required clarification. Too often terminology represented diverse concepts or, similarly, the same concepts were assigned different terms. This problem of semantics could be eliminated by group consensus

which would lead to operational definitions that were meaninful and relevant to each teacher.

5. Teachers need to put into practive what they advocate. Too often they advocate innovative instructional practices but fail to translate their beliefs into concrete operations.
6. Particularly, teachers had to avoid the effects of the self-fulfilling prophecy. Disadvantaged children are frequently undereducated because of the too readily accepted opinion that underachievement is the norm. Conversely, normal achievement in these children is considered an exception. No one can set limits as to how much anyone can learn at any given age, time, or for any socio-economic condition.
7. Instruction had to be varied as well as sequential and developmental. Learning builds upon learning. Facts tend to cluster into conceptual structures. Understanding leads to practical usage.
8. Teaching requires more than presenting curriculum--it requires the involvement of the student. The teacher must discover ways for children to utilize more than their visual auditory sensory modes. Pupils need an experiential approach wherever possible. Vicarious learning does not fully satisfy the appetites of a child's curiosity in exploring his world.
9. Teachers improve their techniques of instruction

more by the example of peer models than by didactic lectures. A variety of instructional approaches are best learned by observing peer models and by active participation in role playing.

10. Teachers must possess skills in identifying and diagnosing the learning problems of their students so that their instruction remains consistent with the assessed needs of their students.
11. The educational process should sustain comparable affective development in conjunction with the cognitive demands of schooling. An education should also provide personal satisfaction, development of a sense of humor, and, in general, be remembered and cherished as an enriching, positive experience.
12. Finally, inasmuch as the years in school entail a large segment of each child's physical and mental development before adulthood, the school's curriculum should include, as one of its objectives, the socialization process.

A listing of these objective should not be construed as a criticism of present practices of teachers or an indictment of failure to be proficient. The majority of teachers would subscribe to the stated objectives. As individuals some teachers have been highly successful. However, systematic change requires more. To succeed, the objectives must be blended with exceptional balance into a comprehensive program. This concept may best be

illustrated by an analogy from athletic competition. Most teams share an abundance of talent. Coordinating that talent to work toward a championship demands skillful coaching. To succeed, there must exist the determination to be better, the cooperation among the team members, and the ability of each member to develop concentration to his responsibilities. If the established learning patterns of disadvantaged children are to be changed throughout the schools, it will be only through such an exceptional effort on the part of the teachers.

To achieve these twelve objectives, a procedure called "Cooperative Inquiry into Educational Processes and Methods" was developed. The plan was to have all the teachers for each grade level participate in separate groups. The first group consisted of the kindergarten teachers from all six elementary schools.

The objectives, as outlined, required considerable teacher involvement in order to initiate attitude change and change in teacher behavior. In effect then, the cooperative inquiry process was a dynamic training program designed as a vehicle for teacher retraining. Teachers viewed other retraining methods--inservice education, workshops, and graduate education--as too divorced from the reality of classroom practice. While the project's primary objective was teacher retraining, this aspect was de-emphasized for the teachers with the activities of the program centered on curriculum development. The retraining project, "Cooperative Inquiry into Educational Processes and Methods," assumed a more acceptable description of a program to design a curriculum guide for teachers

and by teachers.

The process by which the objectives of teacher retraining and curriculum design was to be achieved was through a dynamic group interaction approach. The ultimate success of the project depended on the willingness of the teachers to state openly their beliefs and to express freely their own interpretations of the principal issues and trends. However, more importantly, the group discussions had to allow the emotional reactions of the participants to surface without the fear of feeling foolish or the need to conform. With proper rapport established, such a free educational climate could proceed without loss of respect for one another. The primary responsibility of the group leader was to direct the discussion toward productive issues and to gain the involvement of each teacher. Once the issues were understood by all, a statement of principles slowly emerged which could be accepted by all the teachers as truly representative of "their educational beliefs." At the initial meeting the policy was clearly established that the work they did at the meetings was to reflect their ideas and did not necessarily have to reflect the Board or administrative opinions.

The statement of educational goals gradually emerged as a source of pride for the teachers, both as a personal and as a group accomplishment. As a result, each teacher improved his/her self-esteem and self-concept as a professional, while the group itself became a cohesive entity. The group leader attempted to reinforce each teacher's contribution. Every opportunity to provide feedback was utilized.

Teachers began to have the confidence to initiate different teaching approaches. They then would discuss the difficulties they encountered or the success they experienced. As a group, the teachers expressed that they were able to relate to their students in a new way and their approaches became more experiential and humanistic. Their students, in turn, responded enthusiastically. As the teachers discussed the changes in their students, they continually reinforced each other. In a short time, the group had established a high degree of cohesiveness, a respect for each other, and a group identity. No teacher stood alone. The problems of any one teacher was viewed as a problem for the total group to solve.

Having established confidence in their personal and group endeavors, the teachers were ready to meet the challenge of determining what children should learn in kindergarten. Their responses then became a list of teaching objectives and were arranged in order of priority. All areas of the instructional program were included. The final listing of objectives comprised congnitive, affective, and social skills which were further operationally defined into practical, feasible skills which could be taught. By continuous dialogue the mutual respect among the teachers increased and their attention began to focus more and more upon specific objectives and needs. In attempting to arrive at workable objectives, teachers often expressed their feelings of inadequacy and frustrations about what was meant, what was expected of them, and how to implement the objectives into instruction. "What" and "how"

became the primary focus of the teachers.

When necessary, consultants were available to assist the teachers. At first much attention was devoted to developing a clear understanding of educational terminology such as perceptual skills, motor skills, individualization, readiness, experiential learning modalities, etc. Later, the teachers sought out resource persons who could demonstrate the teaching of specific skills and objectives. They preferred learning through the observation of peer models. They disliked consultants who lectured on what should be done but lacked sufficient skill or interest to demonstrate the "how." Through the sharing of feeling about these experiences, the teachers began to empathize with their own students and became more conscious of their own tendencies to lecture rather than utilizing more active instructional methods.

At about this point, the teachers became aware of the relationship between educational objectives and educational materials. For months, they had held fast to the belief that they could succeed in teaching anything if only they had all the necessary materials. As the program progressed, they began to realize that materials without educational objectives were meaningless. Materials were of value to the extent that they assisted in achieving specific goals. Rather than teach what fit available material, the teachers began to develop their own instructional materials which would help in implementing specific educational objectives.

The discussions among teachers ranged widely from theoretical to practical questions. The tedious process of delving into pure

theory was avoided; however, little practical progress would have been accomplished without some references to related research and selected theoretical models. Without a foundation built on principles of child development, the practical orientation of the program would flounder. The gap between theory and practice was bridged via the cooperative inquiry process.

Finally, teachers explored the question of sequence-building knowledge upon knowledge. The objectives could only be worth-while if they could be translated into a workable instructional plan. Teachers were asked to develop a flow chart of what was to be taught over the nine and one-half months of school. As the flow charts were examined and discussed, a major flow in the teachers' understanding of objectives and curriculum became obvious. There was a tendency to view teaching objectives in a very broad context. They placed all the objectives in the first two months of school, while remaining months were relegated to repetition and drill. Seldom were the objectives broken down into hierarchal sub-objectives that could be perceived as specific milestones along the path of long-range learning. The process began again and the group painstakingly set out to establish a sequential instructional plan based on realistic and accurate understanding of a child's needs, abilities, and patterns of learning. The creation of a curriculum, based on a sequential developmental approach, required the teachers to recognize, interpret and diagnose normal developmental patterns, learning disabilities, variations in skill levels and abilities. The lesson guide that emerged was based on the evaluation of each

child's needs. Upon completion of the "Cooperative Inquiry into Educational Processes and Methods" program, the teachers had undergone an extensive course of retraining based on the proposed objectives and had produced a curriculum guide for their classes.

During the first year, the program had been restricted to kindergarten teachers. In the following years, teachers at other grade levels would also participate. The original group comprised all fifteen kindergarten teachers. Weekly meetings were held from September 1970 through June 1971. Each session was scheduled after school for two hours. Frequently, the discussions continued beyond the time allocation. The teachers were compensated at the rate of $5.00 per hour for their contribution to the project. In addition, all the instructional materials needed to implement the curriculum guide were provided at the completion of the project. Teacher involvement had been greatly enhanced by the frequent opportunities to observe demonstrations of methods. The areas covered were those the teachers themselves identified as needing upgrading. The teachers were assisted by three advisors, a university professor who specialized in educational sociology, the Director of Elementary Education and the Director of Curriculum and Instruction who specialized in educational psychology.

At the first meeting the teachers heard an opening statement by the Director of Curriculum who predicted that the project would eliminate most of the educational difficulties that they had been encountering. At the end of the kindergarten year, students would be achieving at or above national norms. This statement was

met with disbelief by the teachers who actually scoffed at the suggestion. While teachers were not informed that an evaluation of pupil performance would be undertaken, in all likelihood they expected such an evaluation. The question that remained was, "Of what value was the project, and did the program actually succeed in reducing or eliminating the inequalities among entering students due to their early educational deficits?"

Chapter Four

Project Evaluation

The following chapter presents the effectiveness of East Cleveland's program in remediating pronounced learning deficits in children prior to entering first grade. Can the effects of one year provide sufficient opportunity to catch up, as it were, in time to compete without a handicap at the beginning of first grade? This evaluation first sought to determine whether the project appreciably improved pupil achievement upon completion of kindergarten. Secondly, if significant improvement occured in the first year of the project, would the impact continue in kindergarten children in succeeding years without further intervention strategies for teachers? Finally, if improvement was demonstrated in kindergarten, what evidence was there to support that these skills had been maintained as the children progressed through school?

The project in early childhood education was inaugurated during the 1970-71 school year. It was during this period that teachers were most involved. An evaluation of pupil performance was conducted at mid-May 1971. The Metropolitan Readiness Test was administered to every child enrolled in kindergarten. For purposes of evaluation the results were compared to the previous year's level of performance. Six hundred and seventy students completed kindergarten in the project year. Students who might be classified as educable mentally retarded are generally not placed in special classes during their kindergarten program except in rare cases. The results, therefore, include scores for all kindergarten children.

The Metropolitan Readiness Test may be administered at the end of the first month of grade I or upon completion of kindergarten. The manual indicates, if administered in first grade, the national mean would be 54 with a standard deviation of 16. If administered in May of kindergarten, they recommend reducing the mean from 4 - 6 points. There are 100 items on the test and pupils who score below 45 on the test are described as very poor risks to perform first grade learning tasks. Table II presents a frequency distribution of scores on the Metropolitan Readiness Test administered to kindergarten children in May 1971 for all six East Cleveland elementary schools.

TABLE II

FREQUENCY DISTRIBUTION OF SCORES

ON THE METROPOLITAN READINESS TEST

ADMINISTERED MAY 1971 TO KINDERGARTEN CLASSES

Score	Schools 1	2	3	4	5	6	Totals	Percentage of Total
95-99	0	0	0	0	0	0	0	0
90-94	0	1	4	0	0	1	6	.89
85-89	0	3	11	2	1	3	20	2.98
80-84	1	8	9	3	3	2	26	3.88
75-79	5	10	23	4	3	8	53	7.91
70-74	11	17	21	2	4	10	65	9.70
65-69	18	23	23	8	11	19	102	15.22
60-64	23	22	8	11	15	18	97	14.48
55-59	14	16	9	12	14	14	79	11.79
50-54	17	20	4	11	14	10	76	11.34
45-40	12	15	5	15	10	6	63	9.40
40-44	4	6	2	5	6	3	26	3.88
35-39	2	3	1	6	4	2	18	2.69
30-34	2	1	3	4	4	0	14	2.09
25-29	0	2	0	5	7	0	14	2.09
20-24	3	0	0	1	1	0	5	.75
15-19	1	0	0	1	1	0	3	.45
10-14	0	0	0	1	1	0	2	.30
5-9	0	0	0	0	1	0	1	.15
0-4	0	0	0	0	0	0	0	0
Totals	113	147	123	91	100	96	670	99.99
Means	55.83	59.13	69.59	51.84	49.6	60.83	60.23	
Standard Deviation	12.28	14.78	12.77	16.52	17.41	12.63	14.57	

The obtained mean of 60.23 is above the national mean despite the noted differences in testing time. Perhaps the most notable fact that can be perceived from the distribution table is the low number of children who scored below the acceptable 45 score level. The 83 who failed to achieve an acceptable score represented only 12.4 percent of the total population. The children in this particular kindergarten year did not have the benefit of participating in a Head Start program or other remedial preschool programs. The teachers in these classes were the same as in the previous years, and the only known variable added was the staff development program. A comparison of the previous year's performance with the project year clearly demonstrated the superior performance that resulted from the program.

The true effectiveness cannot be appreciated unless there is an understanding of demographic factors. In the 1969-70 school year, the school system was still in transition from an all white school population to one that would eventually become all black. Of the 4,000 elementary children in the East Cleveland schools in 1969-70, 25 percent of the population remained white. The white students were scattered primarily throughout three elementary schools with the hightest concentration in the kindergarten. The practice for many white parents was to enroll their children for the kindergarten year in the East Cleveland Schools and then to transfer them to the two parochial schools in the school district for later schooling. This percentage of middle-class whites had prevented the average performance scores from being truly representative of the black popu-

lation that had moved into East Cleveland from the ghettos of Cleveland. More than one-third of the 1969-70 sample were obtaining scores below 45, that is recommended for readiness for first grade work. If the three schools which had a high percentage of whites were removed from the distribution of scores, a mean of 49 rather than 54 would result. By the end of the 1970-71 school year, the percentage of whites remaining in the East Cleveland Schools fell below five percent, being represented in only one school. There was no need, though, to eliminate the white population. In comparing the results from the project year of 1970-71 with that of 1969-70, the improvement was so statistically significant that there was no need to further justify the East Cleveland kindergarten training program. The frequency distribution for the Metropolitan Readiness test for the 1969-70 year can be found in Table III.

One further demographic fact deserves mention for a clearer understanding of the characteristics of the two populations being compared. In 1969-70 only 12 percent of the total school population were recipients of ADC Welfare as a means of support. By 1970-71 that figure doubled and continued to increase so that by 1975, 50 percent of the school population depended on ADC as their economic means of support.

TABLE III

FREQUENCY DISTRIBUTION OF SCORES

ON THE METROPOLITAN READINESS TEST

ADMINISTERED MAY 1970 TO KINDERGARTEN CLASSES

Score	Schools 1	2	3	4	5	6	Totals	Percentage of Total
95-99	0	0	0	0	0	0	0	0
90-94	0	0	0	0	0	0	0	0
85-89	0	2	0	0	6	3	11	1.64
80-84	2	1	1	3	10	3	20	3.01
75-79	0	1	0	6	23	9	39	5.87
70-74	3	7	4	6	20	11	51	7.68
65-69	4	9	5	17	14	16	65	9.79
60-64	3	11	10	12	10	21	67	10.09
55-59	6	20	12	20	12	19	87	13.10
50-54	6	12	9	19	6	17	69	10.39
45-49	5	11	13	32	3	16	80	12.05
40-44	9	7	11	11	1	14	54	8.13
35-39	8	12	9	13	2	8	52	7.83
30-34	5	5	8	7	1	3	29	4.37
25-29	4	2	2	7	0	4	19	2.86
20-24	3	4	4	2	0	1	14	2.11
15-19	1	0	0	1	0	0	2	.30
10-14	0	2	1	0	0	0	3	.45
5-9	0	0	0	0	0	0	0	0
0-4	0	1	1	0	0	0	2	.30
Totals	59	107	90	156	107	145	664	99.97
Means							54.35	26.35
Standard Deviation							15.63	

A mean of 54.35 for kindergarten children in the 1969-70 school year was well below that of the 1970-71 class. Moreover, 27 percent or 175 children--which is more than double--failed to achieve satisfactorily for entrance into first grade. Considering only the blacks in the sample, 35 percent failed to meet minimum standards. A t-test comparing the two populations, i.e. the 1970-71 class with the 1969-70 class was computed. The resultant "t" score of 7.01 ($df=1331$; $p<.0005$) was highly significant indicating that the scores during the project year were much higher than for the previous year. These results were most gratifying but remains open to two criticisms. The first criticism would be to invoke the Hawthorne effect, since after all it was the first year of a program and did involve teacher change. The second criticism might be how well did the results hold up as the children advanced into their next grades. Both of these variables will be considered.

Any improvement due to the Hawthorne effect can be eliminated if similar or greater effects were to result during the subsequent years. If the achievement scores, obtained for the 1971-71 kindergarten classes, maintained the improvement without further retraining of teachers, the question of Hawthorne effect should be dispelled. Table IV presents the Metropolitan Readiness Test results for the kindergarten classes of 1971-72. The demographic variables remained similar; the teachers remained the same; the level of poverty among the students remained at the previous year's level; and the percentage of white children was negligible--less than two percent for the system.

TABLE IV

FREQUENCY DISTRIBUTION OF SCORES

ON THE METROPOLITAN READINESS TEST

ADMINISTERED MAY 1972 TO KINDERGARTEN CLASSES

Scores	Schools 6	5	4	3	2	1	Total	Percentage of Total
95-99	0	0	0	1	0	0	1	0.2
90-94	0	0	0	4	4	0	8	1.2
85-89	1	0	1	10	10	1	23	3.5
80-84	3	0	0	14	11	5	33	5.0
75-79	14	1	4	19	18	8	64	9.6
70-74	17	5	6	14	13	22	77	11.6
65-69	15	5	12	8	12	22	74	11.1
60-64	18	12	6	12	17	16	81	12.2
55-59	18	15	8	9	17	18	85	12.8
50-54	14	10	12	5	11	14	66	10.0
45-49	11	13	16	1	7	3	51	7.7
40-44	5	11	8	0	8	4	36	5.4
35-39	4	5	7	1	3	3	23	3.5
30-34	2	6	4	1	2	2	12	1.8
25-29	1	4	1	1	0	0	7	1.1
20-24	0	5	3	0	1	2	11	1.7
15-19	0	1	1	0	2	0	4	0.6
10-14	1	0	1	0	1	0	3	0.4
5-9	0	0	0	0	0	0	0	0.0
0-4	0	1	0	0	0	1	2	.3
Totals	124	94	90	100	137	121	666	99.7
Means	60.37	48.62	52.04	71.33	64.02	61.76	60.24	
Standard Deviation	13.25	14.45	15.0	13.15	16.62	13.14	15.94	

A comparison of results from the 1971-72 school year were also very similar with the 1970-71 school year with the means and standard deviations being identical. A statistical comparison for the four years following the initiation of the training program for kindergarten teachers with the preceding year is presented in Table V. The t-test comparison definitely substantiates a continuing a very significant improvement in performance on the Metropolitan Readiness Test for the four years following the project year.

TABLE V

METROPOLITAN READINESS TEST MEAN SCORES

WITH A t-TEST COMPARISON TO 1969-70 MEAN

	Project Year					
Year	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Mean	54.35	60.23	60.24	63.99	63.60	61.86
Standard Deviation	15.63	14.57	15.94	16.04	15.86	14.92
t Test		7.08	6.77	10.59	10.28	8.73
*Level of Significance		$p<.0005$	$p<.0005$	$p<.0005$	$p<.0005$	$p<.0005$

*All one-tailed tests

Tables VI, VII and VIII provide descriptive data for the 1972-73 school year, 1973-74 school year and 1974-75 school year for the kindergartens in the six elementary schools in East Cleveland.

TABLE VI

FREQUENCY DISTRIBUTION OF SCORES

ON THE METROPOLITAN READINESS TEST

ADMINISTERED MAY 1973 TO KINDERGARTEN CLASSES

Scores	Schools 1	2	3	4	5	6	Total	Percentage of Total
95-99		5	1	0	0	0	6	01.1
90-94		7	3	0	0	4	14	02.5
85-89		17	4	0	1	9	31	05.5
80-84	3	10	16	1	1	15	46	08.2
75-79	5	13	14	2	9	14	57	10.2
70-74	14	10	10	7	9	19	69	12.3
65-69	15	17	13	4	11	15	75	13.4
60-64	18	4	6	13	10	8	59	10.5
55-59	20	6	11	8	6	4	55	07.7
50-54	11	7	5	4	9	4	40	07.1
45-49	12	2	3	6	7	4	34	06.1
40-44	7	6	3	14	2	0	32	05.7
35-39	9	3	1	3	4	0	20	03.5
30-34	2	1	2	4	1	3	13	02.3
25-29	1	0	0	0	1	0	2	00.4
20-25	3	0	0	3	0	0	6	01.1
15-19	0	0	0	0	0	0	0	00.0
10-14	0	0	0	0	1	0	1	00.2
5-9	0	0	0	0	0	0	0	00.0
5-4	1	0	0	0	0	0	0	00.2
Totals	121	108	92	69	72	99	561	100
Means	55.96	71.59	68.87	53.51	59.83	71.66	63.99	
Standard Deviation	14.83	15.91	14.15	13.59	14.48	12.58	16.04	

TABLE VII

FREQUENCY DISTRIBUTION OF SCORES

ON THE METROPOLITAN READINESS TEST

ADMINISTERED MAY 1974 TO KINDERGARTEN CLASSES

Scores	Schools 1	2	3	4	5	6	Total	Percentage of Total
95-99	0	0	0	1	0	0	1	.1
90-94	0	3	5	0	0	2	10	1.8
85-89	0	5	7	1	0	3	16	2.8
80-84	3	30	13	4	1	17	68	12.1
75-79	2	21	16	6	5	14	64	11.4
70-74	7	12	18	4	9	18	68	12.1
65-69	8	15	19	7	6	13	68	12.1
60-64	16	7	17	9	12	10	71	12.6
55-59	25	4	10	5	14	8	66	11.7
50-54	18	3	3	10	11	1	46	8.1
45-49	7	1	2	4	7	3	24	4.3
40-44	2	0	1	0	5	2	10	1.8
35-39	3	5	1	2	3	0	14	2.5
30-34	4	0	1	2	2	0	9	1.6
25-29	3	0	0	1	1	0	5	.9
20-24	4	0	1	4	0	0	9	1.6
15-19	3	0	1	1	1	0	6	1.1
10-14	3	0	0	0	0	0	3	.5
5-9	1	0	0	2	2	0	5	.9
1-4	0	0	0	0	0	0	0	0
Totals	109	106	115	63	79	91	563	100
Means	52.47	72.48	69.23	56.59	56.29	70.55	63.60	
Standard Deviation	16.30	12.01	12.98	19.59	14.13	10.70	15.86	

TABLE VIII

FREQUENCY DISTRIBUTION OF SCORES

ON THE METROPOLITAN READINESS TEST

ADMINISTERED MAY 1975 TO KINDERGARTEN CLASSES

Scores	Schools 1	2	3	4	5	6	Total	Percentage of Total
95-100	0	0	0	0	0	0	0	0
90-95	0	1	0	0	0	1	2	.2
85-90	0	11	4	2	4	0	21	4.0
80-85	2	17	7	3	6	5	40	6.7
75-80	3	14	13	5	14	5	54	9.0
70-75	5	10	21	8	10	20	74	12.4
65-70	19	18	21	7	7	19	91	15.2
60-65	22	9	19	12	20	9	91	15.2
55-60	12	9	11	15	10	7	64	10.6
50-55	5	4	11	15	5	11	51	8.5
45-50	10	4	2	14	2	8	40	6.7
40-45	4	4	2	6	4	2	22	3.7
35-40	4	2	4	5	2	3	20	3.3
30-35	3	1	1	2	1	0	8	1.3
25-30	1	1	0	2	0	1	5	.8
20-25	4	0	0	4	0	0	8	1.3
15-20	5	0	0	0	0	0	5	.8
10-15	1	0	0	0	0	0	1	.1
5-10	1	0	0	1	0	0	2	.2
0-5	0	0	0	0	0	0	0	.0
Total	101	105	116	101	85	91	599	100
Mean	53.86	68.62	65.53	55.19	64.80	62.92	61.86	
Standard Deviation	16.96	14.16	11.61	15.53	12.35	12.09	14.92	

An honest assessment of the students' progress was desired, therefore, every attempt had been made to prevent teachers from "teaching the test." First, test results were never disseminated among the teachers. Second, the revised form was introduced without teachers being aware of the change in form. Third, testing material was never available in advance of the testing data. It must be added, however, that even though the formal training program lasted only one year, the teachers have continued to meet periodically among themselves to explore areas of common interest. This has neither been encouraged nor discouraged. Also, at the close of the first year's program, the teachers requested materials which they deemed essential to implement their curriculum. The initial request amounted to approximately $2,000.00 and they have since requested only routine materials.

In addition to the improved performance, two trends appeared impressive. First, the number of students who failed to achieve the minimum level for school readiness has been drastically reduced. In 1970, one-third of all the black students exhibited learning handicaps suggestive of early childhood deficit. Then in 1971, the number of students with learning deficits decreased to 12 percent. In 1972, there were 15 percent; 13 percent in 1973; 11 percent in 1974; and 12 percent in 1975. The number of children exhibiting educational deficits had been reduced by nearly one-third and represented only 10 to 15 percent of all children completing kindergarten. This is not only consistently below national expectancy tables for the population, but also by far below the numbers generally attributed to educationally disadvantaged schools.

The second impressive trend was the change that occurred at the higher levels of performance. The number of students in the top 25th percentile in 1970 represented 24 percent of the kindergarten class and were predominately white. By 1971, when few whites remained in the system, the percentage in the upper quartile increased to 35 percent. In 1972, there were 38 percent; 48 percent in 1973; and 41 percent in 1975. This is nearly double the national average and well above the expected performance for low socio-economic groups.

In summary, the retraining program for kindergarten teachers, using a curriculum project as a vehicle for a group dynamic process, appeared to have achieved its first objective. The "Cooperative Inquiry" approach did have a significant effect upon pupil performance in kindergarten, and apparently achieved its objective of eliminating early childhood educational deficiencies to a significant degree. As a result, urban minority and poverty children were able to begin formal first grade instruction with an equal opportunity to succeed.

While the improvement in the Metropolitan Readiness Test is promising, the question of whether the children could compete equivalently with their suburban peers in the first grade could not be assumed. The data thus far presented reaffirmed what already is known--that early childhood education can improve skills. The more pertinent question is whether these skills can be maintained or will these pupils return to a learning rate which portends an

ever increasing deficit. The return of a deficit learning rate in children as they progressed through school has been the disappointing aspect of Head Start and other early childhood programs. How well do the effects achieved through an intensive program hold up in regular schools? For this reason we will turn our attention to the second possible criticism of the project results. How well did improved performance in kindergarten hold up as the children advanced into their next grades? Were there any long-range values to the project? Did the noted increases continue as the child progressed through his educational exposure from grades one through six? Many early childhood educational programs have, in the past, received considerable national attention for their immediate succcess in upgrading skills of disadvantaged children, only to succumb to the normal learning pattern for their remaining educational experience. Did this project succeed more than just a temporary improvement?

Two separate sources of documentation are available to examine these questions. First, a review of measured intelligence will be presented; and, second, Stanford Achievement Test (SAT) results for each group will be analyzed longitudinally.

East Cleveland eliminated I.Q. testing in 1970 as a result of the national controversy raised about their validity and reliability for minority students. East Cleveland test results tended to confirm the opinions expressed in many articles which reported that black students generally perform one standard deviation below their white peers. Unfortunately, teachers used the

test scores to transfer many children into special classes as well as to explain failure in achievement as due to the low intellectual ability of the students. As a result of these abuses, group testing was discontinued in 1970. In September 1973, a decision was reached between the school medical department and the instructional department to make a total assessment of children's needs and skills. Included within this total assessment was the measurement of intellectual functioning. Of special interest to this report were the I.Q. results for the first grade children.

In the Fall of 1973, the 540 first grade children in all six East Cleveland elementary schools were administered Form A of the Kuhlmann-Anderson Test of Intelligence, Seventh Edition. This was the first of a series of tests administered to these students in order to arrive at individual assessment profiles. Also included in this total assessment were tests of perceptual skills, memory, cognitive skills, learning and speech as well as a thorough physical examination.

Form A of the Kuhlmann-Anderson Intelligence Test provides a deviation I.Q. with a national mean of 100 and a standard deviation of 16. The mean obtained for East Cleveland first graders was 101.22 with a standard deviation of 12.48. Computations based on raw score data were conducted for each school as well as for the total system. A summary of the data is presented in Table IX. Mean I.Q. scores among the six elementary schools ranged from 97.39 to 104.24, yielding a difference of 6.85 I.Q. points among the highest and lowest schools.

TABLE IX

SAMPLE, SIZES, MEANS AND STANDARD DEVIATIONS

FOR KUHLMANN-ANDERSON I.Q. TESTS

ADMINISTERED TO FIRST GRADE STUDENTS (FALL 1973)

Schools	1	2	3	4	5	6	Total
Sample Sizes	70	108	106	99	78	79	540
Means	103.90	100.12	101.62	104.24	99.81	97.39	101.22
Standard Deviations	12.53	13.65	11.08	12.50	12.74	11.18	12.48

The standard deviations among the schools were extremely close and considerably less than the national sample standard deviation of 16. The implication here is that I.Q. scores obtained here varied less and were clustered more closely around the school system means of 101.22 than were I.Q.'s obtained in the national standardization sample for the test. The majority of I.Q. scores were more similar to the system mean than was true in the national norming population.

It is important to note that the black students in East Cleveland's first grade no longer display the pattern which resulted in the elimination of intelligence testing in the system. Rather, here was a situation where a large number of black students who possess characteristics which many believe hamper adequate cognitive development performed very well on an I.Q. test. The stu-

dents did not constitute a select group of outstanding black students, nor was any prompting or practice for the test possible. Teachers were notified one week prior to administration of the test. Materials were provided the day before testing, and all tests were administered according to standardized directions and procedures. Thus, the obtained mean I.Q. scores indicated that black children in East Cleveland improved considerably from previously obtained results. The results were consistent with the performance on their Metropolitan Readiness Test as described in Table V.

A more comprehensive description of pupil performance is possible through observation of their frequency distribution in each of the schools as well as across all six schools. Arranging the frequency distribution of I.Q. points in terms of groupings of five points, one can readily observe how many children scored in which I.Q. groupings. Table X summarizes the frequency distribution of Kuhlmann-Anderson I.Q. scores for each of the six elementary schools. The school numbers in Table X are the same as those in Table IX.

TABLE X

FREQUENCY DISTRIBUTION OF I.Q. SCORES

FROM THE KUHLMANN-ANDERSON TEST

ADMINISTERED IN THE FALL OF 1973 TO FIRST GRADE STUDENTS

Score	Schools 1	2	3	4	5	6	Total Schools
140-144		1					1
135-139		0	1	1			2
130-134	4	2	0	6			12
125-129	2	1	2	2	3		10
120-124	0	5	4	4	3	1	17
115-119	9	9	12	5	5	5	45
110-114	7	10	6	10	7	5	45
105-109	9	11	11	17	8	13	69
100-104	10	11	13	16	10	9	69
95-99	12	19	30	19	12	11	103
90-94	8	13	15	9	16	17	78
85-89	6	12	8	7	7	11	51
80-84	3	10	4	2	3	2	24
75-70		3		1	1	3	8
70-74		1			2	0	3
65-69					1	2	3
Totals	70	108	106	99	78	79	540

The distribution of scores in Table X reveals a much lower number of students who would be classified as "below average" than would be normally anticipated. In the East Cleveland School System, the pupil who scores below 90 is considered below average for out system. The data reveal that such "below average" students constitute only 16.5 percent of all black students tested. These findings differ considerably from those of Pettigrew[12] (1964) who reported that only 25 percent of the black children equaled or ex-

celled white children, or those of Jensen[13](1969) who postulated that nearly 50 percent of black pupils fall well below an I.Q. of 90. Kaufman[14](1972) made specific note of the fact that his research mean I.Q. of 90 for blacks exceeds most previous findings by five points. He similarly reported that 50 percent of black pupils in his study fell below the average range in I.Q. scores. In all certainty, the present results differ considerably from those contained in a statement made about East Cleveland by a prominent psychologist, who stated that East Cleveland was a school system composed totally of "Special Education" students. Secondly, these findings reveal that 130 students are above average, i.e. 24.4 percent of the students attained I.Q. scores above 110. It is not difficult to conclude that 50 percent or more of the East Cleveland pupils equal or excel American whites, as based upon national norms provided in the Kuhlmann-Anderson Test for Intelligence.

To provide a closer examination of individual and/or group comparisons, the scores obtained and described in Table X have been rearranged according to a stanine distribution. In such a distribution, all students are placed into one of nine catagories, thus enabling a rapid method to compare the performance of an individual child relative to nationally standardized norms. Stanine scores are arranged into three major categories--average, above average and below average. The stanine groups can be evaluated by examining the percentages of students who fall at a particular stanine on national norms.

Table XI summarizes the distribution of I.Q. scores for all East Cleveland first graders, the required score to quality for the respective stanines, the percentage of East Cleveland students who are classified for that stanine, as well as comparison with the national norms.

TABLE XI

FREQUENCY DISTRIBUTION OF KUHLMANN-ANDERSON INTELLIGENCE TEST SCORES BY STANINES COMPARING EAST CLEVELAND FIRST GRADE PUPILS TO THE TEST NATIONAL NORMS, FALL 1973

	Stanine	I.Q. Equivalent	No. of E.C. Pupils	Percentage of Pupils	National Percentages
Above Average	9	128 +	20	3.8%	4%
	8	120 - 127	22	4.0%	7%
	7	112 - 119	64	11.9%	12%
Aver.	6	104 - 111	107	19.8%	17%
	5	96 - 103	148	27.4%	20%
	4	88 - 95	120	22.2%	17%
Below Aver.	3	80 - 87	45	8.3%	12%
	2	72 - 79	10	1.9%	7%
	1	71	4	.7%	4%
Totals			540	100 %	100%

As Table XI indicated, 69.4 percent of East Cleveland first grade students would be classified as "average" as compared to the norm group with 54 percent. Only 10.9 percent of this group obtained I.Q. scores that would be considered below average while the expected percentage was 23.

The following year--Fall of 1974--East Cleveland repeated the first grade assessment program. The procedures were the same as in 1973 with the exception of selecting a different test to measure perceptual word language skill development. The Kuhlmann-Anderson Intelligence Test was administered. The obtained mean of 102.44 and a standard deviation of 11.35 was very similar to that obtained the previous year. Table XII reports the means and standard deviations for all schools in the system for the 577 pupils attending East Cleveland's first grades.

TABLE XII

SAMPLE SIZES, MEANS AND STANDARD DEVIATIONS
FOR KUHLMANN-ANDERSON I.Q. TEST
ADMINISTERED TO FIRST GRADE STUDENTS (FALL 1974)

	Schools						
	1	2	3	4	5	6	Total
Sample	101	113	111	115	76	61	577
Mean	106.30	100.63	102.07	100.91	104.18	100.77	102.44
Standard Deviation	12.91	10.95	10.49	10.78	10.46	11.67	11.35

Like the 1973 results the range of scores varied between a low of 100.77 and a high of 106.30, thereby yielding a difference of 5.53 I.Q. points among schools with only a slight increase in obtained score. The standard deviation of 11.35 reaffirmed the 1973 pattern that children in East Cleveland tended to cluster closer around the mean than in the national sample. Table XIII presents the same information contained in Table XII but expressing the results by frequency distribution by schools and total system. The results can be more graphically pertinent in frequency tables and provide the opportunity to further analyze the results.

TABLE XIII

FREQUENCY DISTRIBUTION OF I.Q. SCORES

FROM THE KUHLMANN-ANDERSON TEST

ADMINISTERED TO FIRST GRADE STUDENTS (FALL 1974)

Scores	Schools 1	2	3	4	5	6	Total Schools
140-144	0	0	0	0	0	0	0
135-139	2	0	0	1	0	1	4
130-134	3	1	0	1	0	0	5
125-129	3	1	2	3	3	1	13
120-124	5	6	3	1	4	1	20
115-119	18	4	9	4	10	2	47
110-114	12	13	13	11	6	9	64
105-100	9	13	20	18	14	8	82
100-104	14	15	18	22	11	9	89
95-99	14	25	19	22	15	13	108
90-94	14	19	12	18	9	8	80
85-89	2	11	11	9	3	5	41
80-84	4	4	3	4	1	3	19
75-79	1	0	0	1	0	0	2
70-74	0	1	0	0	0	1	2
65-69	0	0	1	0	0	0	1
	101	113	111	115	76	61	577

Table XIV arranges these I.Q. scores by Stanines permitting a comparison of pupils with the national norming into sample average, above average, and below average groups.

TABLE XIV

FREQUENCY DISTRIBUTION OF KUHLMANN-ANDERSON INTELLIGENCE TEST SCORES BY STANINE COMPARING EAST CLEVELAND FIRST GRADE PUPILS TO THE NATIONAL NORMS FALL 1974

	Stanine	I.Q. Equivalent	No. of E.C. Pupils	Percentage of Pupils	National Percentage
Above Average	9	128 +	16	2.8%	4%
	8	120-127	23	4.0%	7%
	7	112-119	85	14.7%	12%
Average	6	104-111	122	21.1%	17%
	5	96-103	179	29.4%	21%
	4	88-95	121	20.9%	17%
Below Average	3	80-87	26	5.9%	12%
	2	72-79	4	.7%	7%
	1	-71	1	.2%	4%
	Totals		577	100 %	100%

While the national norm places 54 percent in the average range, 71 percent of East Cleveland students fall within the average range. Certainly, East Cleveland's results substantiates that--even though economically disadvantaged and segragated by race--these children most assuredly display a characteristic of average intelligence.

The number of students in the below average category was once again surprising. The expected number based on national norms suggests that 23 percent of students should obtain scores in the below average category. The obtained seven percent is one-third below the national norming distribution and may be viewed as quite a typical for a population of poverty children.

The data depict the East Cleveland first grade population as performing extremely well. Some explanation for the unusually low number of poor performers is needed. As indicated throughout this report, the major emphasis of the school system has been to reduce and eliminate the effects of insufficiencies in economic conditions, deprivation of early learning stimulation and a pattern of living resulting from segregation. The combined documentation of kindergarten performance and the I.Q. patterns strongly suggest that the effects of the program in retraining teachers via the Cooperative Inquiry procedure have made some definite impact.

The most conclusive data that can be added to resolve the question of continuing effects of early childhood education programs ultimately depends upon improved achievement over a long period of time. Continued positive effects upon subsequent kindergarten

classes and adequate I.Q. scores in first grade may appear impressive and suggestive, but do not of themselves offer any support that as children progress from grades one through school that their achievement scores continued to remain stable. The cumulative deficit in achievement as children continue schooling unfortunately still is much in evidence in most research and is a major concern to teachers and administrators.

To evaluate if any impact on the cumulative deficit occurred in East Cleveland, the achievement performance of children progressing through the system after initial success in kindergarten would require that this mean performance remain consistent with that obtained in kindergarten, e.g. children should be expected to achieve at or above grade placement in achievement on a reputable standardized achievement test. Children in the East Cleveland schools have been tested yearly with alternate forms of the Stanford Achievement Test (SAT). Tests had been ordinarily administered in late September but since 1972 they have been changed to the first weeks of May. The SAT is composed of a battery of subtests predominantly concentrating on language and math material skills. Science and social studies are included but warrant only one subtest each. Based upon date of the administration, grade placement should be at the eighth month of their grade level. Testing was conducted during the spring for each grade.

Since the early childhood program was initiated in the 1970-71 school year and has since continued, there are five classes of students who have benefited from the project and have educational

experience beyond kindergarten. The kindergarten class of 1974-75 had just been completed, and data is not available about their first grade performance. The class of 1973-74 had just completed first grade and a one year follow up was possible. For purpose of clarity in making comparisons, this group will be referred to as Group One which respresents the number of hears beyond their kindergarten experience. The kindergarten class of 1972-73 similarly will be referred to as Group Two. The class of 1971-72 will be referred to as Group Three and the original group involved in the study, 1970-71, will be referred to as Group Four.

Group One completed kindergarten instruction with an attained mean of 63.60 on the Metropolitan Readiness Test. Hence, the 563 students demonstrated a readiness for first grade learning higher than than the national norm and they were expected to adequately perform first grade work. With their obtained I.Q. scores on the Kuhlmann- Adnerson Intelligence Test of 101.22 their learning performance should not indicate anything other than a normal learning rate. Based upon the information provided in the manual for the SAT, the expected mean achievement level is 1.8 (one year, eight months) determined by the number of weeks of instruction completed. The children in Group One, in fact, attained a group mean of 2.1. The group mean, therefore, excelled their expected grade placement by three months after less than one year from completion of their kindergarten experience. The conclusion can be made that the improved performance first provided by the described program is indeed maintained for at least one year beyond initiation into the

program.

Group Two's mean readiness scores of 63.99 for the 561 children was very similar to Group One. No I.Q. score for the group exists and can only be assumed to be similar to the described grades which had been assessed for intellectual functioning. This class had been administered the SAT in grades one and two. The obtained mean for the children in second grade was 2.9 or one month above grade placement. Once again, the children scored above grade placement as would be anticipated from their kindergarten readiness scores. Furthermore, a comparison with achievement levels prior to any development of special program in East Cleveland can be performed. The highest mean grade level in achievement at the second grade level after the major population changes in East Cleveland had been 2.5. Clearly the obtained mean of 2.9 demonstrates a significant change in the learning performance. After two years the level of achievement among East Cleveland children remains consistent with their kindergarten readiness scores. The effects upon performance had been sustained for two years.

The 666 children in Group Three demonstrated their readiness for learning but with a slightly lower mean on their Metropolitan Readiness Test. With a mean of 60.24 which is six points above the national average, the expectancy achievement would be similar to Group One and Two. These students should achieve at or slightly above grade placement if they are to maintain the earlier levels of achievement. The third grade assessment revealed a mean grade level

achievement score of 3.9 for 611 participating students. Therefore, the level of performance exceeded their grade placement by one month --the same as occurred with Group Two. After three years of schooling, the level of performance for East Cleveland students held up to the test of time. Continuing at a performance level at or above grade placement demonstrates a degree of stability in performance, which was the major criterion for measuring true success of early childhood programs. Research suggests that Head Start and other programs attempting to reduce the effects of early childhood deprivation failed not in their initial success, but that the improvement noted by these programs failed in sustaining that growth. It may not seem very impressive that a group of students achieve at or slightly above grade placement near the completion of third grade, which is the expected norm. The finding become impressive because success occurred in a system which was described as educationally disadvantaged before the project. In May of 1972, the mean achievement was 3.1, or eight months below the present class and seven months below grade placement. Based upon such a mean level of achievement, only about 20 percent of all students in grade three in 1972 ever reached in 1975 mean.

Group Four comparisons are likewise available and also impressive. The readiness mean for 670 students in 1971 was 60.23. This was the class that attended kindergarten the year that the retraining program was inaugurated and continued throughout the year. The obtained results that year were a surprise in that no change was predicted until after completing the project with the

kindergarten teachers. For this reason a follow up study of the progress of this group has held considerable interest. In 1972 the mean achievement level for fourth grade non-project students on the SAT was 3.7, which is one full year below grade placement. When SAT was administered to project students in May of 1975, the group mean of 4.7 was achieved. A number of factors may explain the success achieved in Group One, Two and Three. Group Four stands out as the class with the least reinforcement. The mean for the class was only one month below grade placement which represents a one month loss as compared to national norms. It should be noted, however, that this obtained mean represents one full year of gain over the fourth grade classes of May 1972, who did not have the benefit of the project. The change was impressive. Certainly some caution should be exerted in overstating the ability to sustain the readiness expectancy scores over four years. Nevertheless, all factors considered, the conclusion can be drawn that after reviewing a four year longitudinal study of participants in East Cleveland's early childhood education program to reduce the learning decrements among poverty children, the program has for all practical purposes shown remarkable consistency in the level of performance as children progress through their schooling. The school system had succeeded in significantly upgrading the achievement levels of children in grades one through four. At least part of that success had to be attributed to raising professional competence of the kindergarten teachers through the described project of "Cooperative Inquiry into Educational Processes and Method."

Chapter Five

Conclusion

The fact remains that the effects of early childhood deprivation continues to be a serious problem in many sectors of American education. Far too many children never achieve their maximum learning potential because of the vast differences that exist among children at the very onset of school. Their willingness to compete in an educational system that subjects them to repeated failure for as many years as they do is a positive indication of how intense the desire to learn is inherent in a child's growth and development. The educational models, which have successfully reversed the wide educational disparity among children, have been few. The problem remains acute upon school entrance and magnifies in intensity as the years progress. This report does not pretend to resolve the problem but it does suggest some strategies of prevention and intervention that merit further consideration. East Cleveland represents one of many school systems beset by challenges for which they were not responsible, but willingly accepted the responsibility for changes. Hopefully, the example of East Cleveland will inspire other educators and other schools to similarly devise programs to benefit the learner.

As stated earlier, the assumption that the parent is a learner, that the child is a learner, and that the teacher is a learner as well, dictated the direction of most educational planning within the system. Of the three who participates in the learning process--

parent, teacher and child--schools exert more influence over the teachers. The development of a strategy to alter institutional process, therefore, appears more likely to succeed with the cooperation and involvement of teachers and with the least expenditure of time, energy and money. Schools lack the resources at the present time to mobilize a major effort to be based primarily on parent involvement.

To look to the teaching staff as the sole approach to the problem of schooling, however, is not and has not been the only options followed. Many programs have focused upon the parent and many more upon the child. Each must be fully examined in the light of all pertinent factors. Ideally, all three combined into a single effort, would probably obtain the greatest results. In recent years many educators have primarily focused upon changes involving the student. Great emphasis has been placed upon individualized instruction, individual guided education, open classrooms, schools without walls, learning centers, competency-based curriculums, contract teaching, experiential learning and many others. These and many more options should be followed so that the technology of instruction reflects the national trust in the nature of man, his rights and his place in society.

Without excluding related options to improve education, East Cleveland prefers to perceive the educator in the same way as educators have been taught to relate to children. Motivation, desire, individual differences and respect toward and among teachers are just as necessary as they are among children. Needless to say,

the fundamental premise of educational change in East Cleveland stems from the belief that the level of educational process is directly proportionate to the competencies of the professional staff. This statement represents a strong profession of dependence upon public school educators and similarly reiterates a lengthy historical practice that teachers are, were and will continue to be looked upon as essential to the learning process. Of extreme importance, then, is the recognition that the only acceptable standards for educators are those of excellence. Professional growth and competence require periodic revitalization and are inherent to the success of the educational process.

The twelve objectives for promoting teacher excellence described in the "Cooperative Inquiry into Educational Process and Methods" project are not intended to be exhaustive. They merely represent the beginning stages of development of a promising program in early childhood education.

References

Sarason, Seymour. "Anxiety Intervention, and the Culture of the School," in C. Spielberger (Ed.), Anxiety: Current Trends in Theory and Research, Vol. II.
New York: Academic Press, 1972.

Froebel, F. The Education of Man. New York: Appleton, 1896.

Freud, Sigmund. A General Introduction to Psychoanalysis.
New York: Liveright, 1935.

Montessori, Maria. The Montessori Method. New York: F.A. Stokes, 1912.

Gesell, Arnold. "Maturation and Patterning of Behavior," in C. Murchism (Ed.), A Handbook of Child Psychology. 2nd Ed.
Worcester, Mass: Clark University Press, 1933.

Engleman-Bareiter. Teaching Disadvantaged Children in Preschool, Englewood Cliffs, New Jersey: Prentice-Hall, 1966.

Hunt, J. McVicker. "How Children Develop Intellectually," in (J.L. Frost and G.A. Hawkes Eds.), The Disadvantaged Child, Boston: Houghton Mifflin, 1966.

Bloom, Benjamin. Stability and Change in Human Characteristics.
New York: Wiley & Sons, 1964.

Piaget, Jean. The Origins of Intelligence in Children.
New York: Norton, 1963.

Bruner, Jerome. Toward a Theory of Instruction. Cambridge, Mass., Harvard University Press, 1966.

Lesser, G.S.; Fifer, G. and Clark, D.H. Mental Abilities of Children from Different Socio-Class and Cultural Groups. Monographs of Society for Research in Child Development, 30, 1965.

Pettigrew, T.R. Negro American Intelligence: a new look at an old controversy. Journal of Negro Education, 1964, 33, 6-25.

Jensen, A.R. How much can we boost I.Q. and scholastic achievement? Harvard Educational Review, 1969,39, 1-123.(a)

Jensen, A.R. Reducing the heredity-environmental uncertainty: a reply. Harvard Educational Review, 1969,39, 449-483. (b)

Kaufman, A.S. Comparison of WPPSI I.Q.'s obtained by matched groups of black and white children. Paper presented at the 80th annual meeting of the American Psychological Association, Hawaii, 1972.